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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/519,655 | 12/27/2004 | Rebecca L. Smith | AD6899USPCT | 7417 |
| 7590 | 10/17/2006 | | EXAMINER | |
| Kevin S Dobson E I du Pont de Nemours and Company Legal - Patents 4417 Lancaster Pike Wilmington, DE 19898 | | | SHAH, MANISH S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2853 | |
| DATE MAILED: 10/17/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/519,655 | SMITH ET AL. | |
| | Examiner | Art Unit | |
| | Manish S. Shah | 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-22 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) Notice of Informal Patent Application
- 6) Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3, 20 & 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Sumita et al. (# EP 1114734 A1).

Sumita et al. discloses:

• A process for ink-jet printing an image onto a rigid thermoplastic interlayer comprising the step: feeding a rigid interlayer sheet through an ink jet printer and ink-jet printing an image on the sheet, wherein the interlayer has a Storage Young's Modulus of 50-1,000 MPa (mega Pascals) at 0.3 Hz and 25.degree. C. ([0438]), as determined according to ASTM D 5026-95a, and wherein the rigid interlayer sheet has a finite thickness of less than 0.38 mm ([0442]).

• The interlayer is either an ethylene/(meth) acrylic acid copolymer ionomer or PVB comprising plasticizer in an amount of less than 30 parts per hundred parts based on the weight of the interlayer sheet ([0120]-[0127]; [0434]-[0436]).

• The interlayer is an ethylene/(meth)acrylic acid copolymer ionomer ([0120]-[0127]; [0422]-[0429], see Examples).

2. Claims 8 & 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Sumita et al. (# EP 1114734 A1).

Sumita et al. discloses a process for obtaining a decorative laminate comprising the steps: (1)"ink jet" printing pigmented ink onto at least one surface of an interlayer sheet which is a rigid ethylene/methacrylic acid copolymer ionomer ([0120]-[0127]) having a thickness of less than or equal to about 0.38 mm and wherein the interlayer has a Storage Young's Modulus of 50-1,000 MPa (mega Pascals) at 0.3 Hz and 25.degree. C. ([0438], [0442]), as determined according to ASTM D 5026-95a, to obtain an image-bearing interlayer sheet; and (2) laminating the image-bearing interlayer sheet between sheets of transparent materials to obtain a decorative laminate ([0430]-[0438]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4-7, 9-19 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumita et al. (# EP 1114734 A1).

Sumita et al. discloses the step of laminating the image-bearing interlayer sheet with a second interlayer sheet, which is non-image bearing, to form a composite image-bearing interlayer ([0436]-[0442]). They also disclose that the image-bearing surface of

the rigid interlayer is the surface that is in contact with the surface of the second interlayer sheet, and the second interlayer sheet is an ethylene/(meth)acrylic acid copolymer ionomer ([0430]-[0440]). They also disclose that image is printed using thermal or piezo or DOD method (see Examples).

Sumita et al. differs from the claim of the present invention is that the total thickness of the composite interlayer is in the range of from about 0.40 mm to about 2.29, and the second interlayer sheet has a thickness of from about 0.76 mm to about 1.13 mm. (2) The roughness is from 5 micrometer to about 15 micrometer.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to incorporate the thickness of the composite interlayer is in the range of from about 0.40 mm to about 2.29, and the second interlayer sheet has a thickness of from about 0.76 mm to about 1.13 mm), since it has been held that it is not inventive to discovering and optimum value or workable ranges by routine experimentation. *In re Aller*, 105 USPQ 233 (CCPA1955).

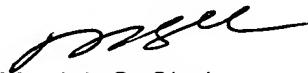
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Manish S. Shah
Primary Examiner
Art Unit 2853

MSS

10/11/06